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ABSTRACT

An annotated bibliography and summaries of major issues pertaining to access and choice in higher education are presented. The introductory section discusses barriers to college attendance, demographic and sector shifts, diversity and pluralism, willingness and ability to finance universal higher education. The bibliography is divided into three sections, each of which includes a narrative discussion of issues. The first section on factors affecting access, choice, and their relationships covers attitudinal, educational, social, geographical, and financial influences. This first section contains one to two page annotations/abstracts of nine publications. The second section on values and judgments discusses the impact of financial aid on access and choice, the effect of the level of tuition on public and private enrollment, and the overall issue of diversity. This section contains annotations of 15 publications. The third section covers the debate on low tuition versus high tuition/financial aid, along with governmental, institutional, student, and family roles in financing higher education. Annotations of five publications are provided. The document concludes with a list of 15 articles, 9 books, and 7 reports. (SW)

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Institutional Research and Studies

AN ANNOTATED BIBLIOGRAPHY OF THE ACCESS AND CHOICE ISSUE IN HIGHER EDUCATION

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INTRODUCTION

Currently, higher education in America is being seriously affected by two main factors - demographics and general economic conditions (National Center on Education Statistics, 1982). Inflationary operating expenses have trapped students in the middle of simultaneous federal student aid cutbacks and rising tuitions. Consequently, students are faced with two options: (1) finding alternative sources of money with which to finance their education, or (2) temporarily stopping out or permanently dropping out of school. In either event, the quarter-of-a-century committment to equal educational opportunity is being threatened.

The terms access and choice reflect the educational goals and ideals of the American people. Several definitions have been applied to access and choice. Access has been defined as the opportunity to "enroll in some form of postsecondary education," and implies "the elimination of all non-academic barriers that prevent a student from attending an institution of higher education," (National Commission on the Financing of Postsecondary Education, 1973, and the National Association of College and University Business Officers, 1980). Choice has been defined as the opportunity for a person to choose among institutions "...appropriate to that person's needs, capability, and motivation," or as "the opportunity to attend the best possible institution with respect to the students' own academic qualifications and motivations," (National Commission on the Financing of Postsecondary Education, 1973, and the National Association of College and University Business Officers, 1980).

Barriers to Higher Education

The goals of access and choice imply breaking down the barriers to higher education in order to achieve equivalent participation rates for populations that differ according to income, race, ethnicity, sex, and residence (Dickmeyer, Wessels, Coldren, 1981). While financial barriers have been the most pronounced in recent years, the elimination of these barriers would not guarantee universal higher education. Attitudinal, educational, geographic, and social factors are also involved.

Specifically, the attitudinal barrier relates to an individual's desire, or rather lack of desire, to continue his/her education. This lack of motivation may be due in part to his/her environmental conditions such as lack of parental or peer group encouragement, or simply to that individual's difference in values and attitudes - for example, feeling unable to cope with college, believing that a college education is not necessary for his/her occupational plans. Articles included in the annotated bibliography relating to this factor are Alexander, Eckland, and Thomas (1979), Jackson (1978), Ramist (1981), and Rosenfeld (1980).

The educational barrier refers to an individual's academic qualifications. Inadequate academic preparation or ability may prevent the student from enrolling in a specific higher education institution (choice) or from attempting higher education at all (access). This area is covered by Alexander, Eckland, and Thomas (1979), Jackson (1977), Munday (1976), Ramist (1981), and Rosenfeld (1980).

The geographic barriers result from unavailability or inadequacy of nearby higher education programs or institutions. The deficiency may be in the program's content, level or quality, or simply in the school's

geographical accessibility. Articles included in this paper which deal with this factor are Corwin and Kent (1978), Jackson (1977), Kehoe (1981), Ramist (1981), Rosenfeld (1980), and the United States Department of Education (1981).

The social barrier encompasses an individual's social class or socioeconomic status, religion, sex, race or ethnic origin. Any one or more of these elements have the potential to hinder equal access and/or choice - regardless of whether it is intentional (in the form of selective admissions) or unintentional. This is not to say that either intentional or unintentional barriers are good or bad, simply that they exist and create diversity. These elements will be dealt with in greater detail in the following articles: Alexander, Eckland, and Thomas (1979); Kehoe (1981); the National Center on Education Statistics (1982); Ramist (1981); and Rosenfeld (1980).

The financial barrier refers to the student's inability to finance his/her higher education because of lack of adequate funds. The goal of student financial aid is to eliminate this barrier. Included are federal, state, institutional, and private scholarships, grants, loans, and work study. Of importance is financial aid's efficacy to extend equal access and choice and the impact of declining federal aid on access and choice. Other attempts to overcome this barrier are parental savings and contributions (as well as willingness to contribute), and student savings and contributions. Inherent is the issue of the roles and responsibilities of each of these sources in financing higher education. These areas will be discussed further in the following articles included in the annotated bibliography: Boyd and others (1979); Chisholm and Cohen (1982); Corwin and Kent (1978); Hyde (1978); Jackson (1977); Jen-

sen (1981); McPherson (1978); Munday (1976); Ramist (1981); Rosenfeld (1980); Stamman (1980); Tierney (1980); and the United States Department of Education (1981).

Demographic and Sector Shifts

Demographics, as mentioned earlier, is the second main factor affecting higher education today. The most notable shift has occurred in the declining number of 18- to 24-year olds (the traditional age of the college student), and the increase in the number of older, part-time students. Between 1968 and 1980, total higher education enrollments increased from 7.5 million to 12.1 million and although enrollments for "traditional" students rose from 5.3 million to 7.3 million, the greatest growth rate has been for students 30 years of age or more. Specifically, enrollments of students between ages 30 and 34 more than doubled from half a million to over 1.2 million, and enrollments of students over age 35 rose from two-thirds of one million to 1.4 million (National Center on Education Statistics, 1982). Taking into account the effects of population growth, the participation rate of adult part-time students increased by eight percent from 1978 to 1981. According to the National Center for Education Statistics, part-time enrollments could make up 46 percent of total enrollment by 1990, compared to less than one-third in 1970.

Additionally, both women and minorities in general have made substantial gains in terms of postsecondary access and choice. Between 1970 and 1980, first time and total enrollments of women increased by 50 and 76 percent respectively. In 1979 and 1980, women outnumbered men in higher education. Although minority students are still underrepresented, there is only a slight difference in representation. Taken as a

percentage of high school graduates, the 1980 college enrollment for blacks was 28 percent compared to 30 percent Hispanic and 32 percent white college enrollment. With the exception of blacks, each minority group had a higher percentage increase in enrollment than white students between 1978 and 1980 (National Center on Education Statistics, 1982).

In terms of sectors, more than 75 percent of the total number of higher education students are enrolled in public institutions (1980 figure); approximately one half of these students attend two-year institutions. Of the 25 percent enrolled in private schools, the majority (92 percent) attend four-year institutions (National Center on Education Statistics, 1982). Uncertainty about the economy's future, cutbacks in student financial aid, and rising tuitions are, more than likely, giving rise to some of the enrollment shifts away from the more expensive to less expensive schools. Community colleges, for example, have noted an enrollment growth rate while some private institutions, particularly those that are small and under-endowed, are experiencing enrollment drops, especially in their number of lower-income students (Magarrel, 1982). The main articles dealing with the various demographic and sector shifts are: the American Council on Education (1982); Alexander, Eckland, and Thomas (1979); Corwin and Kent (1978); Hearn (1980); Hook (1982); Hyde (1978); Kelly (1982); Magarrel (1982); McPherson (1978); National Center on Education Statistics (1982); Stampen (1980); and the United States Department of Education (1981).

Diversity and Pluralism

Although access and choice were once perceived as complementary goals, they are now taking on the view of being directly conflicting. Policies promoting access (emphasized by the federal government), imply

aiding low- tuition public institutions, whereas policies regarding choice (mainly backed by the state governments), appear to benefit private institutions. With the decline in the traditional college-age student and financial aid, the viability of these two sectors will depend on their ability to successfully compete for and attract students (Dickmeyer, Wessels, and Coldren, 1981). This is particularly true of the private sector which is heavily dependent upon tuition revenues and thus especially vulnerable to enrollment losses.

This leads to the issue of diversity and pluralism. Exactly what are the purposes of the various institutions of higher learning such as private schools, women's schools, black, and religious colleges and universities? Does the specific purposes of these institutions take precedence over their increasing costs of operations? It is the writers belief that society has a need and desire for diversity and pluralism in its higher education system, indicating that society does not really want or even expect strict equality of educational opportunity. The American Council on Education (1982), Bowen and Minter (1982), Boyd and others (1979), Corwin and Kent (1978), Hearn (1980), Hyde (1978), Kelly (1982), Magarrel (1982), the National Center on Education Statistics (1982), Rosenfeld (1980), the U.S. Department of Education (1981), and Watkins (1982) deal further with the issue of diversity and pluralism.

Willingness and Ability to Finance Universal Higher Education

Related to the issue of diversity is the question of whether society is willing and/or able to maintain and pay for the right to universal higher education and equality of educational opportunity. Assuming that society is willing to maintain access and choice as a top educational priority, then the problem of financing must be faced. The

phrase "Who Benefits? Who Pays?" as coined by the Carnegie Commission is appropriate here. The implication is that whoever benefits the most from higher education should be responsible for paying the higher education costs. The individual benefits theory states that it is the individual student who benefits the most and should thus pay for the cost of his/her education. This suggests full-cost be borne by the individual and student loans for those who cannot afford to pay. In direct contrast, the societal benefits theory holds that it is society who benefits the most and should thus bear the financial burden. The premise is low or no tuition and tax support. The financial delivery modes may take the form of direct student funding. This has the advantage of providing not only access but also choice to the student. An alternative is direct institutional funding. This has the advantage of preserving institutional integrity and diversity. According to the Carnegie Commission, in terms of monetary outlays, generally one-third of the educational expenses are borne by the individual (and his/her parents) and two-thirds are borne by society. In terms of economic costs (monetary outlays plus net loss of potential income), the individual bears two-thirds in comparison to society's one-third of the burden (Carnegie Commission, 1973). Corwin and Kent (1978), Hearn (1980), Magarrel (1982), the National Center on Education Statistics (1982), Rosenfeld (1980), the U.S. Department of Education (1981), and Van de Water (1982) discuss this issue in greater depth.

Federal, State, Institutional, and Family Roles in Financing Higher Education

Presently, institutions of higher learning receive substantially greater amounts of federal governmental revenues than they did in 1970. This increased reliance on federal funds gives rise to another contro-

versial issue, that of the specific role of the federal government in the support of higher education. Historically, the state was the main contributor. Since 1972, however, this trend has reversed. Financial aid has been the primary means of federal funding and it has been characterized by many by uncoordinated policies and unduly heavy regulation. The controversy centers on whether the federal government has a responsibility for the support of higher education and, if so, what form of support it should take (Arnold, 1982). To some, this controversy is secondary only to the contention that the states can no longer continue to adequately provide from their limited resources and that the federal government is the only potential source to solve the problem. Also included here is the unresolved role of the institution in terms of financing higher education and/or the role of the student and his/her family. The national goal has been for the student to be responsible for paying 25 percent of his/her costs (plus general living expenses), however, the average share paid by the student is increasing (to 41.4 percent in private schools in 1982 from 31.1% in 1980; Magarrel, 1982). This evidences the increasing burden on the student and family. Inherent in this statement is the question of should the public compensate for unwillingness of families to assume such a responsibility, and should students be penalized because of it? (Leslie, 1977) Information pertaining to this topic may be found in the following articles: American Council on Education (1982); Arnold (1982); Boyd, Fenske, and Maxey (1979); Clark and Fenske (1981); Hearn (1980); Hook (1982); Magarrel (1982); Mortenson (1982); National Center on Education Statistics (1982); Rosenfeld (1980); Stampen (1980); United States Department of Education (1981); and Van de Water (1982).

Regardless of the myriad of issues and viewpoints, there is a common thread; the majority of Americans do believe that all qualified students should have the opportunity to attend an institution of higher learning (American Council on Education, 1982). How society chooses to finance this will determine how it handles future policies regarding access and choice and how it reacts to them.

FACTORS AFFECTING ACCESS AND CHOICE AND RELATIONSHIPS BETWEEN THEM

There are various factors that affect students' decisions regarding whether or not to attend postsecondary education, which institutions to apply, and which institutions to enroll. Five general factors have previously been identified as attitudinal, educational, social, geographical, and financial. Each of these are covered in detail within the articles included in the annotated bibliography and each will be discussed briefly with respect to its relationship to the issue of access and choice.

Attitudinal

A student's predisposition toward college, his/her motivation, and level of educational expectations and aspirations will influence his/her decisions (Alexander, Eckland, and Thomas, 1979; Jackson, 1978; Ramist, 1981; and Rosenfeld, 1980). Students who have a favorable predisposition to college select colleges they are likely to attend (Jackson). Ihlanfeldt (1980) reports that 40 percent of entering freshmen only apply to colleges they plan to attend. In discussing the number of studies that report actual effects of aspirations and expectations on the extent of schooling after high school, Rosenfeld indicates that 14 percent of the variance in application to college and 31 percent of the variance in college attendance is explained by aspirations and expectations.

Ramist reports on the relationship between motivational factors and student persistence in college. He maintains that a high degree-level goal is the one motivational factor that relates directly to persistence, and that no (clear) relationship has been found to exist between persistence and vocational goals, pre-college expectations, and reasons

for attending college.

Educational

Alexander, Eckland, Thomas (1979), Jackson (1978), Munday (1976), Ramist (1981), and Rosenfeld (1980) discuss the educational variable. It is generally agreed that academic ability, as measured by I.Q. scores, other test scores, high school grades, or class rank does have a large influence on whether and where a student continues formal education after high school (Rosenfeld). Academic ability definitely restricts many students' choice of institutions. Rosenfeld discusses this in some depth via conclusions of past studies as well as policy issues relating to how great an effect academic ability should have on access (i.e., open admissions). Other than college plans, test scores, class rank, percentile, and course grades represent the greatest determining factors of institutional choice. This is supported by Munday who found educational development (ACT composite scores) to be a greater sorting determinant (in terms of where to enroll) than family income. For instance, students with high educational development backgrounds tend to apply and enroll at institutions where they perceive other students as being similar in academic ability. In addition, they are more likely to attend high-cost colleges. Jackson's findings also evidence this conclusion and he adds that these students especially tend to enroll at doctorate-granting, high prestige, academically rigorous, and expensive colleges. Alexander, Eckland, and Thomas maintain that academic credentials are the major determinants of college access for all racial, sexual, and social class groups. They are, however, unevenly distributed among the groups and the authors recommend placing less emphasis on test scores and more on high school grade performance. This

is because grade performance is proposed to be much less influenced by social class and racial differences than test scores.

Academic ability has a great impact on students' educational plans and activities. In fact several academic factors have a direct relationship to student persistence in college. Ramist identifies these as high college entrance test scores, good high school records, a college preparatory high school program, good high school academic ratings, and good study habits.

Social

Social factors consist of race, sex, religious affiliation, friends' expectations, aspirations, and encouragement, and family background variables such as parental occupation, education, expectations, and direct encouragement. In terms of the relationship between these variables and student persistence in college, Ramist (1981) reports age, sex, and fathers' occupations to have no (clear) relation to level of student persistence while a high level of parental education, being Jewish, Oriental, or Hispanic directly relate to persistence. While students from small towns are less likely to persist, there is no (clear) relationship between big city or suburbian students and persistence. In addition, religious affiliation has been found to be a greater factor in the choice decision of only those students who both expect and prepare to enroll in out-of-state schools than those students who expect and/or prefer to remain in-state.

Data provided by the National Center of Education Statistics (1982) evidences that differences in participation rates by sex and race are decreasing. In 1979 and 1980, for example, women outnumbered men in higher education. While there are still racial differences, they are

only slight. Taken as a percentage of high school graduates, the 1980 college enrollment for blacks was 28 percent compared to 30 percent Hispanic and 32 percent white college enrollments. Furthermore, between 1978 and 1980, each minority group except blacks had a higher percent enrollment increase than whites. Black students are experiencing a slight decline in total enrollment (Preer, 1981). In Rosenfeld's (1980) discussion of the racial variable, a variety of studies are referred to. Of particular interest is a study conducted by Suter (1978); with ability and family income controlled, black high school graduates are about as likely to enroll in an institution of higher learning as whites. In fact, Alexander, Eckland, and Thomas (1979) report that blacks are actually somewhat more likely to attend college. It is believed that racial differences are due to socioeconomic status rather than innate race differences (evidenced by Howell and Frese, 1979).

The effects of social class on higher education attendance and success are greater than sex and/or race effects. Rosenfeld reports that students whose fathers had not completed college were two and one-half times more likely to attend college than those whose fathers had not completed high school. Preer reports that high school students expected to attend college in 77.5 percent of the cases where the head of the family had four or more years of college, compared to 31.6 percent of those students whose family head had less than eight years of formal schooling. Parental social position is also believed to affect the length of time taken to finish a given level of postsecondary education.

The nature of family influence tends to be complex but there appears to be at least four types of influences that the family might have on students' postsecondary education decisions: (1) genetic; (2)

general cultural values and role modeling, which would give the child the values and skills necessary to aspire to a higher education and to do well in school; (3) direct encouragement; and (4) financial assistance and planning (Rosenfeld). Other social variables are school and community characteristics, teachers' encouragement, counseling, and peer networks as well as the effect of the overall student body on student attendance and choice decisions.

Proximity

Proximity is an additional factor that affects access and choice. Corwin and Kent (1978), Jackson (1978), Kehoe (1981), Ramist (1981), Rosenfeld (1980), and U.S. Department of Education (1981) deal with this issue in their respective articles. Rosenfeld points out that proximity can affect access and choice in at least two ways, through both knowledge and costs. That is, students may be more familiar with schools in their surrounding areas. Therefore these schools would be more "available" to them. Cost refers to the usually higher cost of a distant institution, perhaps because of out-of-state tuition expenses or because of higher commuting costs. Ihlanfeldt notes that 92 percent of entering freshmen attend colleges within 500 miles of their homes. Fifty percent attend colleges within 50 miles of their homes. Moreover, of those freshmen who enroll in private institutions and who apply only to one institution, 30 percent will attend institutions greater than 500 miles from their homes, compared with only eight percent of the students attending all colleges.

Jackson's results, while indicating that the number of colleges nearby have no effect on attendance, show regional differences. Specifically, students who apply in-state are 10.4 to 14.6 percentage points

more likely to attend college if they live in a North-Central or Western state, and 0.2 to 2.9 percentage points less likely to attend if they live elsewhere. According to Ihlanfeldt, regardless of region, students from more affluent backgrounds tend to be more mobile with the exception of the black student. Black students are among the most mobile and Hispanics among the least mobile (perhaps because of the family structures).

A study conducted in 1978 by Bowers and others reports findings similar to Jackson's (i.e., the number of colleges nearby have no effect on attendance) except in the case of predicting entry to two-year colleges. In this case, proximity was found to have a strong direct effect on enrollment.

Corwin and Kent found students to be more likely to enroll in their first-choice school when it was closer. When taking only tuition and fees into account, the distance of the institution from the students' homes was found to be more important than its relative cost (in those cases where the choice was between two public institutions.) Furthermore, students going to private schools tended to travel farther, but high-ability students went farther to both public and private schools; more than twice as far to public colleges than the lowest-ability student, and more than half as far to private colleges.

Kehoe found that location greatly influenced those students who preferred to attend an out-of-state institution but expected to attend an in-state institution. No doubt, this is related to economic considerations in that one can only realistically afford to attend an institution closer to home in order to save money. Location was found to only moderately influence students who preferred in-state but expected to

attend either in-state or out-of-state.

Caution should be used when inferring interpretations concerning the correlation between college attendance and geographical proximity. While the general conclusion is that proximity is not a very important factor when all else is taken into account, there are important exceptions. For example, Corwin and Kent contend that when all other relevant factors are controlled for, distance from home is probably still strongly related to college choice. The problem with the analyses is that they deal with only a few variables such as student ability level, institutional tuition and fees, and distance from home. However, other factors such as family income and willingness to pay for increasing travel expenses and out-of-state tuition, as well as the students' desires to be near family and friends should be included. The United States Department of Education reports that, after characteristics such as parental education, ability and race are taken into account, the distance from home is strongly and consistently associated with parental income.

In terms of student persistence in college, Ramist found that in-state or contiguous-state students were more likely to persist than out-of-state (and noncontiguous state) students.

Financial

Family income, financial aid, and the costs of the institution (tuition in particular) are specific variables included in the financial factor. In terms of family income, Rosenfeld (1980) points out the general conclusion that the direct effects of the financial factor on the various stages in educational decision making are small. Much of these effects occur through influences on mental ability, aspiration, academic

performance, and the influence of significant others; about 78 percent, 85 percent, and 59 percent in various studies. This variation in specific findings is attributed to the numerous intervening hard-to-measure variables such as parental willingness to contribute to childrens' higher education (this will be discussed further in a later section), and the overall economic well-being of the family such as past and present economic circumstances and future expectations, number, ages, and status of children in the family, and parental planning and saving for children's educational needs. In fact, parental financial contribution probably affects the choice decision to a greater extent than the access decision. For instance, with rising family income, there is a tendency to choose private rather than public higher education institutions. No (clear) relationship has been found to exist by Ramist (1981) between parental income and level of student persistence in college.

There does appear to be a relationship between parental income and educational costs. Jackson (1978) found that, net of financial aid and distance, the total institutional cost to which the student applied did depend, to some extent, on family income, as well as on parental socioeconomic status, student characteristics and location. He did not, however, find cost to be among the factors affecting access and concluded that cost, by itself, has no consistent effect on whether students attend college once the decision of how expensive a college to which they may apply has been made, and that if cost has any significant effect, it facilitates where to apply rather than where to attend.

Munday (1976) reports findings consistent with Jackson's. In particular, little relationship is found between choice, college costs, and family income for either financial aid applicants or nonapplicants.

Cost is also found to affect choice only when more than one application is made.

On the other hand, Rosenfeld suggests that tuition at a minimum cost college has a major effect on attendance but that there are differences by both student ability and income; extremes of the ability distribution are least responsive to tuition cost differences, and those students from low-income and moderately high-income families are most responsive to tuition differences. The latter part of the conclusion is also supported by Jackson (1977) who found that cost has a significant effect only for middle-income students who tend not to choose high-cost institutions.

Similarly, Corwin and Kent note that for students applying to public schools, those of highest ability tend to go to their first-choice school when they are relatively cheaper, while for the other ability groups, cost has no effect. In the private sector, however, those students of higher ability are unaffected by price differences, while those of lower ability are more likely to attend their first-choice school when they are cheaper. Additionally, McPherson argues that higher-income students are less sensitive to prices in deciding whether to attend, but more price sensitive in deciding where to attend. The tendency has therefore been for high-income families to substitute public for private education. The effects of cost changes by educational sector and the increasing attention being given to the tuition gap and its impact upon public versus private enrollment are discussed in greater depth in a later section.

The negative effects of tuition costs on enrollment depend also on the length of the program that might be chosen; the negative effect of

tuition costs is greatest for programs lasting less than one year, and least for programs lasting between one and two years. The effects of tuition costs on enrollment are also much greater for the low-income families as compared to high-income families. Living costs, however, are believed not to differ in their effects by family income (Rosenfeld).

It is generally agreed that price changes appear to have some impact on access and that while it is significant, it is small in magnitude and negative. The exact impact, however, varies from study to study. In addition, Chisholm and Cohen (1982) point out that the effect of price on enrollment differs by type of student and by type of institution. McPherson supports the finding that a $100 decrease in tuition would result in about a one percentage point increase in the enrollment rate, while Jackson claims a two or three percentage point increase in the enrollment rate for a one-hundred dollar tuition decrease. Jackson also argues (as already noted) that the lowering of tuition is not an efficient mechanism for achieving equal access and choice. Instead, tuition subsidies and student aid to low- and middle-income students are believed to be more efficient uses of financial resources. Likewise, McPherson concludes that policies attempting to increase attendance by decreasing tuition would be too expensive and not very effective, since most of the students affected would have attended anyway.

Chisholm and Cohen state that while factors such as the match between student ability and institutional quality become more important when a group of institutions of similar price levels are being compared, other factors such as the student's sex moderate the effect of price on demand. In Michigan higher education institutions, males have been

found to be relatively unresponsive to price changes. Like the nontraditional female student, however, the nontraditional males tend to be price and income sensitive.

Weathersby concludes that the effects of financial aid on access and choice are significant, positive, and somewhat larger than the pricing effects. In fact, Jackson contends that the award of aid is more important than the amount of aid. For example, an applicant offered aid by the colleges of his/her choice is 8.5 percentage points more likely to attend college than other similar applicants applying to similar colleges but not offered aid. He estimates that applicants awarded an additional one-hundred dollars aid are only 0.1 percentage points more likely to attend than otherwise similar nonapplicants.

The dilemma in using financial aid to increase enrollment, as pointed out by Jackson, is that efficient aid programs are too limited and unlimited ones too inefficient. This is opposed, however, by Boyd, Corwin and Kent, and Rosenfeld. Boyd's 1979 results, based on responses from a sample of Illinois scholarship and grant recipients, indicate that financial aid had major importance to the recipients' access to and choice of college. Corwin and Kent state that given the kinds of behavior that can be affected by financial policies, financial aid is probably an efficient way of increasing access and choice in postsecondary education. In a more general (and thus probably much more accurate statement) Rosenfeld concludes that financial aid is only sometimes important to some students.

The United States Department of Education's 1981 annual evaluation report notes studies revealing that 70 percent of all entering freshmen eventually graduate from college; one half of whom graduate from the

original institution, and the remainder of whom transfer and graduate (30 percent of the students transfer in their sophomore year). The Department's analysis of recent data collected from a study on student persistence indicates that financial aid is related to student persistence in a positive manner. In particular, those students with a grant or a loan above one-thousand dollars are found to have higher persistence rates. As expected, financial aid assists the low-income student more than a student from higher-income families. Work aid appears to enhance the persistence of low-income students, especially if they do not receive grant aid. Work aid, however, does not appear to be a factor for higher-income students, especially if they already have a grant.

Jensen (1981) supports the main conclusion that financial aid is related to persistence but on a smaller scale. He reports a small positive effect on student persistence upon the receipt of aid in the freshmen year. Thus, the denial of aid is found to have a small, negative impact upon persistence. Increasing amounts of aid per semester, however, tend to have an insignificant negative relationship on the number of semesters attended during the four-year time period.

Ramist maintains that while parental aid and major spouse support show direct relationships to persistence, financial aid and other factors such as scholarships or grants, loans, and financial information show no (clear) relation. He also concludes that tuition has been found to relate directly to persistence at predominately black colleges but not to persistence at predominately white colleges. Additionally, part-time, off-campus work indicates no effect, while full-time employment shows a negative influence on persistence. Federal work-study and ROTC benefits show direct relationships, but GI benefits and financial

aid packages indicate an indirect relationship to student persistence in college.

Non-financial characteristics are just as important, and in some cases even more important, than financial characteristics. The U.S. Department of Education reports that various federal programs are aimed at removing non-financial barriers to access and choice by assisting disadvantaged students with academic promise who lack academic preparation or who are insufficiently motivated. A 1979 study of the Upward Bound Program identified substantial impact upon students' entry into and persistence in postsecondary education programs. A recently completed study by the Special Services for Disadvantaged Students Program indicated that students receiving the full range of this program's services were 2.26 times as likely to complete their freshmen year as compared with similar students not receiving these services. They also attempted and completed more course units. It is therefore concluded that programs such as these are effective ways of increasing the enrollment and persistence of participating students in postsecondary education.

ANNOTATED BIBLIOGRAPHY

FOR

FACTORS AFFECTING ACCESS AND CHOICE AND RELATIONSHIPS BETWEEN THEM

Alexander, Karl L.; Eckland, Bruce K.; and Thomas, Gail E., "Access to Higher Education: The Importance of Race, Sex, Social Class, and Academic Credentials." School Review 87 (February 1979): 133-156.

The study analyzed the effects of social class, family background, race, sex, and academic credentials on student access to higher education. The authors note that traditionally, blacks, women, and students from lower socioeconomic backgrounds have been more successful in gaining access to all levels of education during times of economic growth and prosperity. Decreased participation is therefore predicted for these groups in the current period of economic downturn.

Academic credentials and social class are found to be major determinants of college access for all students. Academic credentials, however, are unevenly distributed among race and sex groups and result in substantial variation across groups in terms of its impact on college attendance. On the average, whites and higher status students receive higher standardized test scores than do blacks and lower economic status students. When scholastic aptitude and family origin are controlled, blacks and women experience little direct disadvantage in terms of the liklihood of attending college. In fact, low socioeconomic status students tend to be more disadvantaged than either blacks or women. When compared to whites with similar status origins and scholastic aptitude, blacks are even somewhat more likely than whites to attend college.

As a whole, class rank, high school curriculum, and scholastic aptitude are more important than the combined effects of race, sex, and social class. In conclusion, the authors present a path model depicting the college attendance process, and emphasize that contrary to recent research which suggests that economic status and race differences in academic aspirations and expectations are diminishing, and in fact that

the motivations of minority students are in many instances surpassing those of majority students, they believe student motivations and aspirations to be more important than parental income in influencing educational attainment.

Chisholm, Mark, and Cohen, Bethaviva. A Review and Introduction to Higher Education Price Response Studies. Boulder, Colorado: National Center for Higher Education Management Systems, 1982.

This report provides an excellent review of important research studies and findings on the effects of price on student demand for higher education, as well as a discussion of the strengths and weaknesses of the data and methods used in these studies. The following are included in the literature review: Carlson, Farmer, and Weathersby (1974); Dresch (1975); Jackson and Weathersby (1975); Weinschrott (1977); Cohen and Morgan (1978); Hyde (1978); McPherson (1978); and the California Postsecondary Education Commission (1980). Inherent in all of these studies as well as those remaining articles mentioned in the report are three generally accepted results: (1) Price does have an effect on enrollment, but it differs by type of student and type of institution. (2) If all other things remain constant, enrollment decreases as price increases. (3) As family income rises, the effect of price seems to decline.

According to Spies (1978), factors such as the match between student ability and institutional quality become more important when a group of institutions of similar price levels are being compared, and other factors such as the student's sex and age can temper the effect of price on student demand. For instance, Moor (1979) found that, without exception, male participation in Michigan higher education was unrelated to relative price changes and only nontraditional (older) male students were sensitive to real income responses. However, the nontraditional (older) female student appeared to be much more responsive to price changes and, although sensitive to income changes, exhibited less dramatic responses than the nontraditional male. Van Dyke (1977) also

found that adult students were more responsive to tuition levels than the more recent high school graduates. The report contains an excellent bibliography for further reference.

Corwin, Thomas M., and Kent, Laura, eds. Tuition and Student Aid. Their Relation to College Enrollment Decisions. Washington, D.C.: American Council on Education, Policy Analysis Service, ED 154 744, May 1978.

This summary of the April 1977 seminar proceedings provides a very good overview of tuition and student aid and their relation to college enrollment. The following topics are covered: determinants of college decisions (including a detailed discussion of the tuition gap), shortcomings of models and data bases, effects of federal aid on college decisions, supply and demand in postsecondary education, effects of price and nonprice characteristics, some methodological considerations, the middle income squeeze, reaching nonapplicants, the effects of student aid, further questions to be considered (including a discussion of the federal and state purposes), and policy implications. In addition, new and ongoing research studies are critiqued. Speakers include Froomkin, Henson, McPherson, Nelson, Nolfi, and Weathersby.

According to Weathersby, the goal of access has been achieved in this country in the sense that those who apply to college are rarely denied entry. He states that pricing effects on access are significant but small in magnitude and negative. Whereas the effects of financial aid are significant, positive, and somewhat larger than the pricing effects.

Preliminary findings of Astin's new study reveals that higher ability students are much more likely to attend private institutions and lower ability students to attend public institutions. Higher ability students will travel 50 percent further to attend private institutions. Also those of higher ability who choose to attend public institutions will travel twice as far as lower ability students.

The point is made that financial aid is probably an efficient way

of increasing access and choice in postsecondary education. An additional but more tenuous point is that the tuition gap between private and public institutions has significant yet only moderate impact on enrollment decisions.

Jackson, Gregory A. "Financial Aid and Student Enrollment". Journal of Higher Education 49 (November/December 1978): 548-573.

Jackson presents a general model of student choice and discusses the power of student financial aid to influence students' attendance decisions. It is widely agreed that students consider four aspects of colleges: (1) academic standing, (2) social prestige, (3) location, and (4) financial implications. Although the detailed methods, data, and results of earlier research studies vary considerably, several generalities have emerged - living in a better neighborhood, attending a better school, having a more prosperous family, or being more academically able all increase the liklihood that a student will attend college. Parental and peer pressure to attend college also have an impact. Moreover, students are less likely to attend expensive or distant colleges. Colleges offering financial aid are more likely to attract students than other equivalently expensive colleges. Over sixty percent of all applicants apply to only one college; the remainder apply to colleges with remarkably similar offerings, prestige, quality, and price. Very few students apply to both two- and four-year colleges, or to colleges with very different tuitions.

Jackson finds that students who apply in their home state are 10.4 to 14.6 percentage points more likely to attend college if they live in a North Central or Western state, and 0.2 to 2.9 percentage points less likely to attend if they live elsewhere. The effect of aid on access is greatest for North Central residents and smallest for Southerners.

In relation to socioeconomic status, Jackson finds that low-SES students respond more strongly to the regional effect of aid on access than other students, respond more strongly to grades, respond much more favorably to aid offers than other students, and that among low-SES stu-

dents blacks or Mexican-Americans are 6.9 percentage points less likely to attend college than whites.

Most importantly, the author concludes that the award of aid is more important than the amount of aid. An applicant offered aid by the colleges of his/her choice is 8.5 percentage points more likely to attend college than other similar applicants to similar colleges but who were not offered aid. Applicants awarded $100 more than their current aid are only 0.1 percentage point more likely to attend college than otherwise similar nonapplicants. Several assumptions regarding financial aid as public policy are offered. One such assumption is that a hypothetical universal-aid policy would increase overall enrollment from 46.0 to 51.8 percent of high school graduates. The cost of such a program is ridiculously high, however. The dilemma in using financial aid to increase enrollment is that basically, "...efficient aid programs are too limited and unlimited ones too inefficient."

Overall, Jackson pinpoints several limitations of similar research studies and discusses his attempts to best deal with and overcome them. One such limitation is that other studies assume that all students actively consider a wide range of options. Another is that the studies fail to control for variables that influence both aid and attendance. The article as a whole serves as an excellent basis for further study or reference concerning the factors affecting student choice and the relationships between these factors.

Jensen, Eric L. "Student Financial Aid and Persistence in College." Journal of Higher Education 52 (May/June 1981): 280-294.

Jensen analyzes the effects of student financial aid on student persistence in college over a four-year time period and reviews past research regarding the determinants of educational attainment and persistence.

By controlling for non-financial determinants of persistence, Jensen discovers findings that are contradictory to the general assumption that as financial needs are increasingly met, the economic impetus for dropping out of college is reduced. Instead, his results indicate only a small positive effect on student persistence upon the receipt of aid in the freshman year. Consequently, the denial of aid revealed a small negative impact upon persistence. Increasing amounts of aid per semester, however, tended to have an insignificant negative relationship to the number of semesters attended.

In conclusion, the author points out a methodological limitation of the research - the absence of an accurate method of measuring the degree to which the aid award meets the students' perceived financial needs. As a consequence, he recommends using caution when drawing inferences from these findings. Doubtless, this limitation applies to other studies of a similar nature as well.

Kehoe, John J., "Migrational Choice Patterns in Financial Aid Policy Making." Research in Higher Education 14 (1981): 57-69.

An excellent examination of the in-state and out-of-state patterns of students in relation to various academic, socioeconomic, and financial resource variables is provided in this study. The potential impact of financial aid on the choice decision is analyzed, and a very good selective review of the past studies regarding access and choice is included.

In general, four variables are found to have a negative influence on students' decisions regarding an out-of-state higher education institution: the cost of the first-choice/preferred institution, student loans as a method of support at the preferred institution, the reality of the choice, and family considerations. The cost of the institution where a student expected to enroll, the institution's religious affiliation, and student earnings tend to have a negative impact on students' decisions concerning an in-state institution. Race, sex, and class standing appeared to have little effect upon the students' decision to remain in-state.

Four choice pattern catagories are devised and referred to throughout the study. Group 1 consists of those students who stated an in-state first choice/preference and expected to enroll in-state. Group 2 refers to those students who reported an in-state first choice but expected to enroll out-of-state. Group 3 refers to an out-of-state first choice but expectations to enroll in-state. Group 4 relates to both out-of-state preferences and expectations of the students.

With respect to out-of-state institution decisions, it was found that: (1) Those students indicating matching preferences and expectations (groups 1 and 4), regardless of whether in-state or out-of-state,

appeared to be influenced relatively little by the cost of their first choice institution. (2) The offer of state grants and the costs at the institution where the students expected to enroll influenced group 1 to a greater extent than any other group. (3) Those groups that had differing first and expected choices (groups 2 and 3), were influenced to a greater extent by the costs of their first choice institution and the perception that their first choice may not be realistic.

Results pertaining to in-state decisions were as follows: (1) Those students who preferred to go out of state but expected to stay in state (group 3) appeared to be greatly influenced by location, student savings and grants (to be used as support at institutions where they expected to enroll), and financial considerations. (2) Students who reported an in-state preference but expected to attend either an in-state or an out-of-state institution (groups 1 and 2) tended to be influenced only moderately by location, financial considerations, student grant support from their first choice school, and student savings as support at the school where they expected to enroll. (3) Institutional religious affiliation appeared to have a greater influence on group 4, students who both preferred and expected to enroll at an out-of-state school, more than any other group. Other important influencing factors for these students were cost at the institutions where they expected to attend and the use of student earnings and savings as support at their first choice school.

Munday, Leo A. "The Impact of Educational Development, Family Income, College Costs, and Financial Aid in Student Choice and Enrollment in College". The American College Testing Report. No. 77 (November 1976): 1-18.

The American College Testing study of the relationships among student characteristics and colleges chosen and attended are examined in this report. Findings indicated that the majority of students at all income levels were attending low-cost colleges. Little relationship was found to exist between cost of college attended and students' family income, for both college students in general and financial aid applicants. As expected, the most significant impact of college costs on attendance occurred at the low and high end of the income level.

In terms of college choice and attendance, while college students in general tended to sort themselves by family income and educational development (ACT composite scores), financial aid applicants did not. High-income and high- educational development background students were more likely to attend a high- cost college than were students from low-income and low-educational development backgrounds. As many as thirty percent of high-income, high-educational development students attended low-cost colleges but only four percent of low-income, low educational development background students attended a high-cost college. Educational development was found to be a greater sorting determinant than family income.

Financial aid applicants tended to enroll at colleges whose students were different from them with respect to educational development and family income. Without financial aid these applicants would probably choose and enroll in colleges where students were similar to them in these two characteristics. For both college students in general and financial aid applicants, average student educational development had a

moderate and consistent relation to college costs.

The data implies that college choice and attendance is not as restricted by students' family income as previously believed, and because of the large number of students attending low-cost colleges the potential impact of changes in college costs on students could be great.

Ramist, Leonard. "College Student Attrition and Retention." College Board Report No. 81-1. New York: College Entrance Examination Board, 1981, pp.25-26.

In tabular format the fifty years of retention research regarding the types of students who are more and less likely to persist in college is summarized.

Demographic factors such as age, sex, parental income, and father's occupation are found to have no relation or no clear relation to level of student persistence. Other demographic factors such as a high level of parental education, Oriental or Hispanic ethnic groups, and Jewish religion do show a direct relationship to student persistence in college. Marriage tends to affect the sexes differently. Married males show a greater tendency to persist than married females. In terms of hometown location, a contiguous state rather than out of state (and non-contiguous state) appears to be directly related to persistence. Students from small towns are less likely to persist in college while big city or suburbian students indicate no relation or no clear relation to persistence.

With respect to academic factors, high SAT scores, good high school records, taking and, in particular, scoring high on the College Board Achievement Tests, college preparatory high school programs, good high school academic ratings, good study habits, and high performance in college resulted in a direct relationship to persistence. This is also true for those students who took more than the average years of high school study in English, mathematics, foreign language, or physical science. Students with collegiate studies in the biological sciences, health-related professions, history and cultures, and elementary education also tended to persist. In contrast, those students in the follow-

ing areas of study were less likely to persist: agriculture, forestry and conservation, physical education, architecture and environmental design, engineering, psychology and police science. No clear relationship has been found to exist with high school size and type, years of high school study in social studies and biological science, and the collegiate studies of business, education (other than elementary), and the social sciences (other than psychology).

No clear relationship exists between student persistence and motivational factors such as vocational goals, pre-college expectations, reasons for attending college, and parental influence. The one motivational factor that directly relates to persistence is a high degree-level goal.

Financial factors represent the final characteristic in the research used to determine the type of students who are more and less likely to persist in college. Such factors as parental aid and major spouse support show direct relationships, while financial aid, scholarships or grants, and loans show no (clear) relationship. Tuition has been found to relate directly to persistence at predominately black colleges but not clearly to persistence at predominately white colleges. Off-campus part-time work shows no (clear) effect, but full-time employment tends to negatively influence student persistence. Federal work-study and ROTC benefits show direct relationships but GI benefits and financial aid packages indicate an indirect relationship to student college persistence.

Rosenfeld, Rachel A. High School and Beyond (A National Longitudinal Study for the 1980's) - Postsecondary Education Decision Making: Review of the Literature and Design for Analysis of the Parents Data. Report to National Center for Education Statistics and the Office of Evaluation and Dissemenation under NCES Contract No. 300-78-0208. Chicago, Illinois: National Opinion Research Center, 1980.

This report is divided into two sections. The first is a review of the literature on factors affecting the postsecondary education decision making process with emphasis on the effect of student and family characteristics and attitudes. Other factors examined are school and community characteristics, the noncollege alternatives, and college alternatives including proximity, selectivity, quality, programs, student body characteristics, cost and financial aid, as well as knowledge of alternatives.

It has been evidenced that student characteristics, academic ability in particular, do have a great effect on whether and where a student continues formal education after high school. Family socioeconomic background has been found to be another important factor, although the nature of its effect is not clearly understood. Family social position is determined as having a greater effect than that of family income (which tends to have relatively little influence on the students' post-high school activities and decisions).

Conclusions relating to the effects of educational cost and financial aid on educational behavior (in terms of access, choice, and retention) are weak. As expected, cost does appear to be more important for low-income rather than high-income students. However, it is not usually one of the main factors taken into account in determining choice decisions. Financial aid is shown to be only sometimes important to some students.

The second section of this report deals with the application of these findings to the development of a plan for the analysis of future parents survey collection data about the family decision making process for higher education. The four areas covered are parental aspirations and expectations, parental knowledge of postsecondary education, planning for and willingness to contribute to a child's education, ability to contribute and expected parental contribution.

Overall, the report provides an excellent review of the literature and pertinent information for future research and policy decisions.

VALUES AND JUDGEMENTS

This section contains information regarding financial aid's impact on access and choice, the effect of the level of tuition on public and private enrollment, and the overall issue of diversity.

The Impact of Financial Aid on Access and Choice

There is some uncertainty about the effectiveness of student financial aid in drawing and sustaining enrollment and in increasing the participation rates among low-income students. Stampen (1980) remarks that despite massive increases in student aid, quantitative evidence has not revealed substantially increased participation by students from low-income families, the targets for the rapid expansion of federal student aid since the early 1970's. Yet he advises caution in inferring that student aid has been ineffective, because the problem of detecting enrollment changes due to financial aid could be more of a result of poor data rather than a lack of actual impact.

The belief that student aid has been ineffective in increasing low-income student participation rates, is supported by Hansen (in Hook, 1982). He alleges that increased federal spending for student aid has done little to improve disadvantaged youths' access to higher education and argues that only minor enrollment pattern changes have occurred and that these could not clearly be attributed to aid increases. In contrast, the National Center on Education Statistics (1982) reports that between 1978 and 1980 every minority group except blacks had a higher undergraduate enrollment percentage increase than whites. This was also found to hold true at the graduate level. This is assumed to be attributable to the increases in student aid. According to Hansen, enroll-

ment of lower-income blacks rose only one percentage point, while above-average income black enrollments rose from 25.2 percent to 29.8 percent (from 1972 to 1980). Hansen's findings, however, may be counteracted by the contention that such a restrained low-income student enrollment change does not necessarily point to ineffective aid programs. There may very well have been a sizable drop in the 1970s enrollment rates without student aid (Hook, 1982).

While Hansen views financial aid to be a mere transfer program, i.e., substituting public for private funds and reducing the financial burden on parents and students without really inducing additional enrollments, the American Council on Education (1982), for one, perceive things differently. In presenting the results of two major studies, they reveal that the federal financial aid cuts have definitely hurt low-income student enrollment. Moreover, Magarrel in the Chronicle of Higher Education (1982) reports that the number of lower-income students have dropped 39 percent at private colleges. He qualifies this, however, by saying that financial aid reductions are only one of the factors behind the enrollment shifts.

It is Hearn's belief that while there is little aid policy itself can do to counter future enrollment declines, individual policy innovations and reforms do have some potential to redistribute enrollment between sectors (1980). He comments on the growing evidence indicating that the remaining differences in higher education attendance rates among the various socioeconomic levels are due primarily to motivational and aspirational differences rather than differences in parental ability to pay. Jackson (1978) and Thomas, Alexander, and Eckland (1979) also verify this.

The Effect of the Tuition Level on Public and Private Enrollment

Basically, three questions should be included in the discussion of the tuition gap: (1) To what extent do student aid programs help to bridge the tuition gap? (2) To what extent does the tuition gap vary as a function of income? (3) To what extent do tuition and student aid affect enrollment for both the public and private sectors (Stampen). In relation to the first two questions, Corwin and Kent (1978) argue that for low- income students, financial aid tends to narrow the tuition gap. They also make note of the widely varying results in studies and, while advising against placing too much confidence in any one specific figure, state that all studies show a consistent direction of effect, i.e., as personal income increases more is spent on private than public higher education. Hyde (1978) supports the belief that private enrollment is positively related to family income; as real disposable income per household rises, enrollment increases in both sectors, but the effect is three times as great in raising private rather than public enrollments. Tierney (1980) adds that the actual tuition gap is less important to the public versus private matriculation decision than the various forms of financial aid to all students except non-white students from upper-income families. For example, a $100 increase in grant or scholarship aid by a private institution increases the probability of a private matriculation of a low-income white student by six percent.

In relation to the third question, the tuition gap has a significant but only moderate impact on enrollment decisions, according to McPherson (1978). Hyde contends that for each two additional students who enroll in public institutions (as a result of a change in public tuition), one of them is a new enrollee in higher education and the

other is a student switching from the private sector. Furthermore, Corwin and Kent found that price changes in private four-year colleges had a greater effect on their own enrollments than on enrollments of two-year private colleges or two- or four-year public colleges. More specifically, Hyde has found that: (1) the effect of a $100 decrease in price at public institutions increases the public enrollment rate by about one percentage point; (2) the effect of a similar price change in private institutions increases the private enrollment rate by about half as much; and (3) the rate of substitution of public for private and of private for public is slightly more than half what the direct price effect is. In dealing with the public versus the private matriculation decision, Tierney reports that financial aid increases have a greater impact on the matriculation decision of the majority of students than tuition decreases. This is especially true for lower-income non-white students.

By comparing student burdens with what students can be reasonably expected to earn or borrow, the U.S. Department of Education (1981) sheds light on the achievement of both the access and choice objectives of student financial aid programs. The Department's annual evaluation report suggests that financial barriers to postsecondary education have been overcome. In 1979-80, the student burden for most dependent students was less than the amount that a student could reasonably be expected to earn or borrow. Even though the independent student's burden was generally larger than that of the dependent student's, most students appeared to have had only limited financial difficulty in attending all but the most expensive private institutions. Federal aid programs appear to have placed attendance at relatively high-cost insti-

tutions within the financial reach of the poorest students, although it still involves considerable sacrifice, especially for independent students. These programs also tend to provide sufficient funds to equalize the level of the student burden at institutions with similar costs for families with annual incomes of less than $24,000.

The issue of how many and which students switch enrollment between the public and private sectors when the tuition level is changed is the primary purpose of a study conducted by Feldman and Hoenack (1969 in Hyde). In examining the price response of enrollment at public and private institutions by different student ability, income, and sex groups, they conclude that differential changes in enrollment rates for different populations are due to the proportion of a population that is indifferent to attending college. However, this raises the question "Why should society make particularly large financial sacrifices to support many students who do not care whether they continue their education, while those who very much want to obtain further education receive less financial support?" While the article makes no attempt to answer this question or to make a judgement regarding what should be the balance between public and private sectors (and what criteria should be used to accomplish this), it does comment that whether public educational subsidies are distributed through student aid programs or directly to institutions to lower tuitions defines to an important extent the balance between the sectors.

The Question of Diversity

Financial aid has been said to be the balancing factor of diversity, the source of survival for many institutions. In particular, the survival of less selective, tuition dependent, private institutions and

the black colleges are said to be threatened. The National Commission on Higher Education Issues (1981) reports that while the impact of student assistance programs will cut across all institutions (about five million students reportedly receive funds from one or more of these programs), the adverse affects will be especially felt by individual independent institutions. In fact, based on the assumption that there is no change in current federal or state policy toward the independent sector, the Commission projects that the current average national assistance that supports 44.79 percent of educational and general independent expenditures, will drop to 34.66 percent in 1985-86. It should be kept in mind, however, that there are also wide regional variations. While the private junior colleges are experiencing trouble with respect to the number of schools, (which dropped from 231 to 171 in the 1970s), they experienced a 12 percent enrollment increase during 1980-81 to 1981-82 (Bowen and Minter, 1982). It is the church-related private colleges in particular that appear to be threatened. The number of church-related colleges dropped 32 percent (from 124 to 84), while denominational institutions experienced a 21 percent drop (from 110 to 87) (Watkins, 1982).

According to the American Council on Education, black college enrollments are also expected to drop sharply in the next few years. More than likely this is a result of increasing costs, cutbacks in student financial aid, and lawsuits against affirmative action.

All in all, the U.S. Department of Education notes that reserves are down for private colleges and that flexibility is disappearing in the public institutions. A greater committment to choice in the student assistance programming of the 1980s is called for by Kelly (1982).

ANNOTATED BIBLIOGRAPHY

FOR

VALUES AND JUDGEMENTS

American Council on Education, "A Look at the Status of Blacks in Higher Education." Higher Education and National Affairs 31 (December 3, 1982): 3.

Highlights of Race and Equity in Higher Education, a recent book published by the American Council on Education and based on the results of a 1981 seminar on desegregation are discussed. The book consists of five chapters: "Race and Equity in Higher Education," "Toward the Desegregation and Effective Enhancement of Public Historically Black Institutions," "Demographics of Desegregation: The Status of Blacks in Higher Education," "A Perspective on the Constitutional Requirements for Desegregation in Higher Education," and "Toward a Political Taxonomy of Desegregating Higher Education."

While racial patterns in higher education have changed greatly during the past twenty years, blacks are still disproportionately underrepresented. In 1960, 200,000 blacks out of the four million students enrolled in higher education with 130,000 enrolled at historically black institutions. By 1980, one million of the twelve million higher education students were black with 200,000 enrolled in historically black institutions. Other key points include:

(1) While traditionally black institutions produce almost one half of all black graduates, nearly four of every five black students enroll in traditionally white higher education institutions.

(2) Approximately one half of all black students attend two-year schools.

(3) Blacks make up 14 percent of the college-age population but comprise only 8 percent of total college enrollment.

(4) Blacks have never made up more than two percent of degree holders (except for a few graduate and professional fields).

(5) Due to increasing costs, cutbacks in student financial aid, and lawsuits against affirmative action, black college enrollments in the next few years are expected to drop sharply.

(6) The survival of black colleges is threatened partially because of the cutback in state and federal aid and partially because of a depressed economy and corporate philanthropy.

Overall the book addresses several important issues relating to equality of educational opportunity.

American Council on Education. "U.S. Student Assistance Serves the 'Truly Needy'; Aid Cuts Hurt Low-Income Enrollment, Study Says." Higher Education and National Affairs 31 (September 17, 1982): 1, 6, 8.

The findings of two recent major studies concerning the profile of public college financial aid recipients and the impact of the 1981-1982 federal financial aid cutbacks on these students and on private enrollments are presented.

The typical financial aid recipients are from low- to moderate-income backgrounds (one-half from below poverty level) and receive little or no parental aid. They earn a substantial part of their college expenses and could not attend college without student aid. One-third are self-supporting. The data shows clearly that students receiving aid are not getting a "free ride."

A closer look shows that: (1) over two-thirds of self- supporting or independent students have incomes below $6,000; (2) those students receiving some parental aid, an average of $469, have an average family income of $16,500, receive $1,000 in grants, borrow about $700, and earn about $500; (3) the average 1981-1982 self-supporting student needed approximately $6,000 a year college and living expenses, was often an older student helping to support a family, received no parental aid, earned $450 in college work-study and contributed about $1,900 in other earnings, borrowed about $700, and received $1,100 in grants (mostly Pell); (4) black students (at public four-year colleges) received about $180 from parents, Hispanics received about $142, and white students - $600.

Because of the reductions in federal financial aid, the number of low-income students at private colleges have declined substantially. Total undergraduate enrollment during 1979-1980 to 1981-1982 increased

two percent, total undergraduate aid recipients dropped four percent (from 60% to 56%), independent aid recipients decreased 16 percent, and the number of dependent aid recipients (with family incomes ranging between $6,000 and $24,000) dropped 39 percent.

The amount of Pell Grant funding in private institutions has declined by 18 percent and the number of recipients have declined by ten percent since 1979. The average institutional award has increased by 19 percent, and the percentage of recipients increased ten percentage points from 45 percent in 1979-1980 to 55 percent in 1981-1982. Guaranteed loans have increased dramatically, 27 percent in average loan amount and doubled in the number of participants. Additionally, self-help in the private sector has risen from 31.1 percent to 41.4 percent. With the declining Pell Grants, institutional aid, Guaranteed Loans, and self- help (loans, work, student savings) have increased. During this same two year period, however, minority student participation has declined.

The studies reveal that the federal financial aid budget cuts are definitely hurting low-income enrollment.

Association of American Colleges. "Women: Getting Ahead by Degrees." On Campus With Women no. 33 (Fall 1981):9.

According to the data reported in "Degrees to Women: 1979 Update" by the National Center for Education Statistics, enrollment of women is increasing at every level of postsecondary education and the number of degrees being awarded to women is rising.

From 1971 to 1980, the percentage of women enrolling at American colleges and universities went from 41% of 8.6 million students to over 50% of the 11.7 million students--representing a 67% gain in the enrollment of women as compared to an overall enrollment rise of 35%. In 1979, women earned almost one-half of all degrees awarded at the bachelor's level and the master's level, 14% of doctorates, and slightly over one-quarter of first professional degrees.

This article simply highlights women's inroads into higher education.

Boyd, Joseph D., Fenske, Robert H., and Maxey, E. James. "State Financial Aid to Students: A Trend Analysis of Access and Choice of Public or Private Colleges." College and University 54 (Winter 1979): 139-55.

This study, conducted over the nine year period 1967-1976 for the Illinois State Scholarship Commission (ISSC), reports trends in student access to and choice of public and private colleges and universities as related to the availability of monetary grants. The ISSC, one of the four largest state student financial aid agencies in the United States, demonstrates the increasingly significant role such agencies play in expanding access to and in fostering the students' choice of higher education learning institutions.

Findings were based upon responses from repeated samples of scholarship and grant recipients at three-year intervals during the 1967-68 to 1976-77 academic years. The majority of the respondents indicated that they would not have been able to attend college without the state's financial assistance. A smaller number reported that while they would have attended college even without the aid, their choice would definitely have been limited. In terms of choice, private four- year college students felt the impact to a greater extent than public college students. Without the monetary award, seventy-five percent stated that they would have had to shift to a public college.

The effects of such monetary awards on maintaining the vitality of the private sector are also discussed by the authors.

This study supports the importance of state student aid programs to both the public and private sectors of higher education. It should serve as a helpful source of information for higher education policy makers.

Hearn, James C. "Effects on Enrollments of Changes in Student Aid Policies and Programs." New Directions for Institutional Research 25, pp. 1-12. Edited by Joe B. Henry. California: Jossey-Bass Inc., Publishers, 1980.

Hearn assesses the present and future condition of higher education in light of financial aid policies, tuition costs, and enrollment patterns. He stresses the importance of thoughtful institutional financial aid policies and forecasts. Four prospective changes are described along with a fairly detailed discussion of their effects on access and choice in various institutions: early notification of students, Basic Educational Opportunity Grant (now PELL) half-cost provision, national aid delivery system, and tuition tax credits.

Of the four policies, only earlier notification of students about the various financial aid programs and the prospects for receiving such aid appears to hold promise of significant enrollment increases for higher education. This is based upon evidence suggesting that important, basic decisions concerning educational aspirations are, for the most part, made early in the high school years.

The point is made that financial aid is only one of the many factors involved in shifts in enrollment patterns, and that there is little aid policy itself can give to counter the future enrollment declines. Individual policy innovations and reforms, however, do have some potential to redistribute enrollment between sectors. The elimination of the BEOG half-cost rule, the centralization and simplification of the national aid delivery system, and earlier notification of aid applicants would probably help the public sector more than the private. The tuition tax credits hold some limited potential for encouraging private college enrollments. The tax credits and the earlier notification of aid applicants could boost four-year enrollments as compared to enroll-

ments at two-year institutions.

As with most studies, one limitation is the necessity of holding several factors constant--factors that could prove critical to future developments in higher education. These include changes in public opinion regarding equal educational opportunity, and the possible influences of massive funding increases in the BEOG program.

Hook, Janet, "Increased Federal Aid Has Not Attracted More Low-Income Students, Report Says." Chronicle of Higher Education 25 (November 17, 1982): 13.

Hook discusses the controversial results of a recently completed study by Mr. W. Lee Hansen. Hansen concludes that increased federal spending for student aid has done little to increase access to higher education for disadvantaged young people and that the expansion of student aid programs in the 1970's merely made it easier for parents and students to meet college expenses, without really inducing more low-income student enrollments.

The study compared enrollment patterns and college plans of students in the early and late 1970's and was based on an analysis of census data and two longitudinal studies of high school seniors. Hansen reported only minor changes in enrollment patterns and claimed that the shift could not clearly be attributable to increases in student aid. Moreover, he found little evidence that the increased availability of student aid had stimulated the educational aspirations of disadvantaged young people. In response, analysts contended that the study was insufficiently comprehensive to justify the conclusions and that the lack of enrollment change of low- income students from 1972-1980 did not necessarily mean that financial aid programs had failed to increase higher education access because "without student aid, there may have been a sizable drop in college going rates during the 1970's."

The contrasting findings makes this report noteworthy and demonstrates the need for further research on the effectiveness of student aid in increasing the participation rates of low-income students.

Hyde, William D., Jr., The Effect of Tuition and Financial Aid on Access and Choice in Postsecondary Education. Denver, Colorado: Education Commission of the States, Education Finance Center, ED 153 541, January 1978.

This report presents an excellent discussion and review of the literature regarding the effects of tuition and financial aid policies on access and choice in postsecondary education. This report is organized into four sections, the first three of which will be discussed. The first deals with the research evidence regarding the effect of tuition on aggregate enrollment demand and the variation for different ability and income groups. It also examines the importance of tuition relative to other demand variables.

Hyde states that while there is general agreement that aggregate enrollment is negatively related to the tuition level, there is much less agreement as to how much enrollment will increase for a given decrease in tuition. However, he considers the magnitude of the effect to be small; generally two or three percent increase in the enrollment rate for a $100 tuition decrease. The author presents a selective review of the literature dealing with this topic.

The effect of tuition on enrollment for different institutions is covered in the second section. Again, a generalization is made; as personal income rises, more is spent on private rather than public higher education. Specific findings by McPherson (1978), Hopkins, Hight (1975), Bishop (1975, 1977), and Feldman and Hoenack (1969) are discussed. McPherson, for example, comments that for each two additional students that enroll in public institutions (as a result of a change in public tuition) one of them is a new enrollee in higher education and the other is a student switching from the private sector.

Section three examines the limited research of the effect of stu-

dent financial aid on enrollment and compares the results to the effectiveness of tuition changes on enrollment. Included are studies by Leslie and Fife (1974), Carlson (1974 and 1975), Weathersby (1975), and Jackson (1977). Four general findings are described in some detail. Basically: (1) A large proportion of surveyed aid recipients responded that they would not attend without aid. For grants, this was the response for between one-third and three-fourths of the recipients, and for work study, one-quarter gave similar responses. (2) In terms of increasing enrollment, grants are more effective than either loans or work study programs. (3) While the effect on enrollment of receiving aid is less than the effect of a change in tuition on enrollment, it is concluded that the lowering of tuition is not an efficient mechanism for achieving equal access and choice. Instead, tuition subsidies and student aid to low- and middle- income students are found to be more efficient uses of financial resources. (4) The awarding of aid is more important than the amount of aid.

Kelly, Robert N. "High Costs, High Need: The Independent College and Student Assistance ". New Directions for Institutional Research 7, pp. 15-30. Edited by Joe B. Henry. California: Jossey-Bass Inc., Publishers, 1980.

The author discusses higher education's two-tiered pricing system, student aid policies, programs, and procedures, and their effects on the private sector's enrollment patterns and quality. The term two-tiered pricing system refers to higher education's differential pricing for a college education. Private colleges/universities are naturally at a considerable disadvantage unless they can convince prospective students that their product is intrinsically better and therefore worth the higher price, or unless it can discount quality and thus lower the price. Because private institutions are dependent upon tuitions, student assistance programs, especially those providing choice, have become the source of their survival.

The article is divided into five main sections: independent college aid policies, federal programs, state policies and choice, the future, and conclusions/recommendations. Each area is described in terms of the two goals - access and choice. According to Kelly, the goals are in conflict with each other and have been transformed into buzzwords identifying the two higher education segments.

Magarrel, Jack. "Aid to Students Increased Despite U.S. Cuts, Survey Finds." Chronicle of Higher Education 25 (December 8, 1982): 7.

It is pointed out that even though institutional aid to students in 1981-82 increased by 9 percent, tuition rose by 14 percent. Moreover, the amount of federal aid declined (Pell Grants by 7%, NDSL by 22%. GSL not included in survey), meaning that students have been falling increasingly into debt in order to finance their higher education.

In particular, institutional loans were reported as rising by 17% along with an average 16% increase in the amount of institutional grants. Private institutions were found to have contributed an increase of 24% in these grants as compared to the public's 7% increase. Private institutions experienced more severe federal fund cuts in the form of Pell Grants than did public institutions (average 10% and 3% respectively), however, this was reversed for National Direct Student Loan reductions (18% and 26% respectively). Furthermore, private institutions were found to be more closely matched than public institutions in terms of tuition and student aid increases: a respective 15% rise in tuition and 12% rise in student aid as compared to a 14% rise in tuition and 5% rise in student aid. Similarly, private selective liberal arts colleges reported an 18% tuition and 19% student aid hike while those less selective indicated a 16% tuition and 11% student aid increase. The greatest discrepancy was found to be in the public Ph.D. granting institutions: an average 22% tuition and 9% total student aid hike.

This article merely indicates that tuition increases have been greater than student aid increases.

Magarrel, Jack. "Number of Lower-Income Students Drops 39 Percent at Private Colleges". Chronicle of Higher Education 25 (September 1, 1982): 1,18.

With tuitions increasing and federal aid to students decreasing, private higher education institutions are reporting a major loss of lower income students. A survey of students who received federal aid at private colleges/universities in 1979-1980 and 1981-1982 indicates a 39 percent drop in enrollment of students from family incomes between $6,000 and $24,000.

It was noted that federal aid cutbacks are only one factor behind the enrollment shifts. An additional factor, the uncertainty about the economy's future, is resulting in a movement away from expensive private institutions.

Several significant points are brought out in this article. First, during the past two years, undergraduate enrollment increased two percent but the number receiving federal aid declined by three percent (from 59 percent to 56 percent). Second, during the same time period, the number of students from higher income families (over $36,000) receiving federal aid increased by 156 percent. Third, trends indicate an increased reliance on self help. Specifically, students are switching from federal grants to institutional aid and are becoming more dependent on borrowing and on their own earnings/savings. Fourth, the average share of cost of education paid by the student of private colleges has increased from the national goal of 25 percent to 31.1% in 1980 to 41.4 percent in 1982.

The article provides a quick, up-to-date look at private higher education institutions functioning in today's economy.

McPherson, Michael S. "The Demand for Higher Education." In Public Policy and Private Higher Education, edited by David W. Breneman and Chester E. Finn, Jr. Washington, D.C.: Brookings Institution, 1978.

The public versus private competition for students, measuring the tuition gap, and effects of tuition on enrollment are discussed in this report. The report contains an overview of empirical studies and a discussion of tuition levels and the decision to enroll, the choice of institution, and the effects by type of private institution.

Nonprice characteristics such as quality, accessibility, selectivity, and variety of offerings have been more important than changes in the tuition gap in explaining the rise in public enrollments in the public-private competition for students. However, in the near future the public's nonprice competition through admission standards and geographical accessibility is likely to stabilize and perhaps even decline in relation to that of the private sector.

McPherson remarks that while there is indeed a negative relationship between price and access, tuition is only one of the determining factors. It is generally overridden by motivational and other personal characteristics and family background factors. The universal finding, however, is that a $100 decrease in tuition (occuring in all colleges simultaneously), would lead to about a one percentage point increase in the overall enrollment rate in postsecondary education (expressed as a percentage of 18- to 24-year-olds). For every ten students who are induced to enroll in the public sector by the tuition differences between the two sectors, between four to seven of them would otherwise have attended a private institution. The tendency to substitute public for private enrollment with the widening of the tuition gap is stronger among high-income students. While high-income students are less price

sensitive than low-income students in deciding whether to attend college they remain somewhat sensitive to price in deciding where to go to college.

Tuition effects by type of private institution are examined in two steps. First, qualitatively by reviewing the affect of such factors as distinctiveness of offerings, reputation, student income distribution, market areas, admissions selectivity, tuition dependence, and urban or rural location on tuition sensitivity of enrollment at various types of private colleges. Second, by analyzing the public tuition and public/private enrollment level relationship.

In conclusion, several important implications for policy making regarding the demand for higher education are cited. Cutting tuition in half, for example, would only raise overall enrollment by about 15 percent. Therefore, attaining high enrollments by keeping tuition rates low across the board is a very expensive way to achieve access goals. A less expensive way to maintain high college enrollment or to increase it is to target low tuition (or student aid) to those groups that are most sensitive to price in their enrollment decisions, namely the low-income students. This finding implies that subsidies should be targeted on low-income students and "specifically suggests that the policy in most states of using government funds to keep tuition low at public institutions is hard to defend on access grounds."

Mortenson, Thomas G. Measures of Student and State Financial Support for Higher Education in Illinois. Report to the Executive Board of the Illinois Association of Student Financial Aid Administrators. August 5, 1982.

The declining nature of Illinois' student and state financial support for higher education is analyzed. By providing comparative measuring, the author highlights the fundamental financial difficulties being faced by Illinois higher education and by the Monetary Award Program administered by the Illinois State Scholarship Commission.

State appropriations since FY 1980 have been inadequate to maintain the Monetary Award Program. As a result, an estimated 10,000 students in FY 1981 were denied aid, 30,000 students in FY 1982 were asked to repay $100 of their grants, 12,000-13,000 needy students were denied FY 1982 grants, and an additional 25,000-30,000 students are expected to again be denied grants in FY 1983. For FY 1983, the Illinois State Scholarship Commission will provide only 39 percent of the FY 1970 support level.

In terms of student financial support for Illinois higher education, tuition and fees at the public university main campus fell from 5 percent above the average of the six comparison states in FY 1973 to 12 percent below in FY 1982, state colleges and universities dropped from 11 percent above average to 8 percent below average, and FY 1982 community college rates are reported as $253 below average.

The author found the following results to be true in terms of state support. From FY 1971 to FY 1982, Illinois dropped from 25 percent above the national average in state appropriations per capita to 14 percent below. During the same time period, Illinois fell from 9 percent above the national average in state appropriations per $1,000 of personal income to 22 percent below. The proportion of state and local

governmental expenditures devoted to higher education dropped from 14 percent above the national average in FY 1970 to 12 percent below the national average in FY 1980. Illinois also fell from 21 percent above the FY 1974 national average in state and local expenditures per student to 17 percent below in FY 1980. With respect to changes in state support, Illinois fell from 29th in state ranking in FY 1975 to 50th in FY 1981 and 1982. Illinois is currently providing between 77 percent and 86 percent of the national average level of support (student and state) for higher education.

This report contains the most complete and current data available for the comparative study of state financial support for higher education and provides excellent background material for future investigation of Illinois access and choice and policy formulations.

National Center for Education Statistics. Update on Black College Students and Black Colleges: 1980-81. Washington, D.C.: National Center for Education Statistics Bulletin, Department of Education, ED 208 779, September 1981.

More than one million black students were reported enrolled in colleges and universities in the fall 1980, slightly more than half of whom attended Southern and border state colleges. One-third of these students attended predominantly black colleges - mainly the traditionally black institutions (in comparison to newer predominately black institutions that were founded within the last 25 years). Enrollments in traditional and predominantly black institutions have risen. The majority of these newer predominantly black institutions are public two-year schools that emphasize vocational education and are organized for profit.

The purposes, enrollment profiles, and specific locations of these two types of institutions are also discussed. This report provides a quick update on this important group of students.

Preer, Jean L. Minority Access to Higher Education. AAHE-ERIC/Higher Education Research Report Number 1, Washington, D.C.: American Association for Higher Education, 1981.

The access and choice issue in relation to minority students in higher education are described in terms of minority progress over time, minority progress relative to other groups of students, and progress at different levels. Two-year versus four-year enrollment, part-time versus full-time enrollment, public versus private college enrollment, and predominantly white versus historically black college enrollments are factors used to gauge minority progress and measure access. Other areas of discussion include increasing the pool of minority applicants, designing more equitable admission procedures, increasing minority retention, the federal role, desegregation, and implementing change.

Findings revealed that student interests in attending college resulted in a significantly different pattern from student plans for attending college. Student interest in and plans for attending a higher education institution vary with race, ethnic origin, family income, and years of schooling of the family head. In 1979, 40.5 percent of black high school seniors planned to attend college as compared to 47.8 percent of the Hispanic and 49.4 percent of the white high school seniors. Additionally, 81.2 percent of students from families earning more than $25,000 planned to attend college as compared to 37 percent of below $5,000 family income students. Moreover, the students' expectations of attending college were 77.5 percent in cases where the head of the family had four or more years of college. In those cases where the family head had less than eight years of formal schooling, 31.6 percent of the students expected to attend some form of postsecondary education. Lower income students who came from lower educated families tended to aspire

to vocational schools.

In contrast, a 1975 survey revealed that a larger proportion of blacks, students from families with below $5,000 incomes, and students from families with low levels of family head schooling indicated greater interest in attending some form of postsecondary education than Hispanics or whites, higher income family students, and students with higher educational level family heads. Since interest and motivation are significantly related to admission and retention, this is perceived as a hopeful sign for minority students. However, while Hispanics and women continue to increase their share of total enrollment, black students are experiencing a slight decline in total enrollment.

Minority Access to Higher Education provides a good overview of higher education minority group status and factors affecting their attendance and choice decisions.

United States Department of Education. Annual Evaluation Report for the 1981 Fiscal Year. vol. 1. Washington, D.C.: Office of Planning, Budget, and Evaluation, 1981.

Summaries based on various evaluation studies conducted by the Department of Education concerning, among other areas, postsecondary education and institutional aid are contained in this report. Volume I provides an overview and highlights new findings from general studies. Volume 2 contains detailed program summaries. In particular, Volume 1 reports data (frequented by supplementary tables) regarding participation rates, the improvement of access and choice through student support, the impact of student financial aid programs, the impact of the Student Financial Assistance Programs, the impact of the Middle-Income Student Assistance Act, student persistence, the delivery of federal student assistance, and, finally, on the improvement of access, choice, and quality through institutional support.

Several important points have been noted.

(1) Enrollment growth rates have been steadily declining. This trend was reversed in 1980 for both males and females, (assumed to be the result of the Middle Income Student Assistance Act).

(2) The financial aid barriers have been overcome as evidenced by the relatively low 1979-1980 dependent student burden (less than the reasonably expected amount to be borrowed or earned).

(3) It appears that there is limited financial difficulty on the part of most dependent students in attendance at all but the most expensive private institutions. In general, independent student burden is larger than that for the dependent student.

(4) The levels of student burden at institutions with similar costs for families of less than $24,000 annual incomes (due to the federal student

aid program funding) are equivalent.

(5) As a result of financial aid programs the lowest income student can attend relatively high cost institutions of higher education, even though considerable sacrifice is still involved.

(6) Studies of Federal programs targeted towards removing non- financial barriers to college attendance continue to indicate that these programs are an effective way to increase the enrollment and persistence of particular postsecondary education students.

(7) Enrollments will be affected by and have profound impacts on the financial condition of many higher education institutions resulting from substantial reductions in federal student aid funding.

Other reports classified under postsecondary education include an evaluation of the special services for disadvantaged students program, a loan indebtedness study, a national longitudinal study of 1980 parent survey, trends in financial indicators of colleges and universities, and the financial conditions of higher education institutions.

This report provides a good update on the U.S. Department of Education's perception of what is currently being done regarding access and choice in higher education.

OUTSTANDING QUESTIONS CONCERNING ACCESS AND CHOICE

This section consists of the low tuition versus high tuition/financial aid debate, a discussion of governmental, institutional, student, and family roles in the financing of higher education, and a report on the issue of parental willingness to contribute to the financing of their children's postsecondary education.

Parental Willingness to Finance Higher Education

In large part, the students' ability to pay determines their access to higher education. Of particular interest with respect to future policy decisions are the parents' willingness and ability to financially support their children's postsecondary education. The United States Department of Education (1981) reports that the federal aid programs expect parents to make a reasonable contribution to this financing. Yet it is not really known to what extent parents will or can make such contributions. According to the National Center on Education Statistics (1982), between 1970 and 1980, student charges at the colleges and universities in the United States doubled, but median family income doubled at the same time. As a result, the ratio of student charges to median family income varied only slightly during that time and, at public institutions, even fell by more than three percentage points from 15 percent in 1970 to just under 13 percent in 1980. Ability to pay varies for different groups of people. For instance, in 1980 the median family income for Hispanic families was about 33 percent lower than that of white families. Black families were about 42 percent lower. If students' access to higher education depends soley on their families' ability to pay, the access of minorities, in general, will be seriously limited.

Most parents are willing to contribute to their children's higher education. Rosenfeld (1980) reports on a 1979 Ontario study which found that 85 percent of the parents expected to help support their children; 97 percent of the high socioeconomic parents responded this way and 73 percent of the low socioeconomic parents surveyed responded this way. The problem, however, is that even though a large proportion of the parents respond in a positive manner, they fail to plan for this expense. In this particular study, less than one-half of the parents had made any financial plans for this expense, (the exception to this was the next to highest socioeconomic level). In fact, the United States Department of Education reports earlier studies indicating that after adjusting for family income, there exists a high degree of variation in the willingness of parents to contribute to their children's higher education.

Roles

A 1980 National Center on Education Statistics survey obtained parental views on who should have the main responsibility for financing higher education. Additionally, the Center asked parents what actions they had taken to save money for their children's postsecondary education. While parents were more likely to respond that it was their responsibility (as opposed to student or governmental responsibility), their responses differed by both income level and racial/ethnic groups (the income level differences being greater). The response given by 41 percent, 49 percent, and 58 percent of the parents by lowest income level, middle, and highest income level respectively, was that it was the primary responsibility of the parents to finance higher education.

Moreover, this was the response given by 44 percent of Hispanic and black parents and by 50 percent of the white parents.

Of those parents who wanted some higher education for their children, 45 percent had done something specific to have money available for further education. This varied directly according to the type of education the parents wanted for their children, income level, and racial/ethnic group. For each of the three income groups, the order of preference in allocating the main responsibility was: (1) parents, (2) students, (3) the federal government, and (4) state or local governments. Hispanics accorded second place to state or local governments, while blacks gave second place to the federal government.

Historically, the responsibility for the financing of higher education has been with the state government. According to Arnold (1982), the state contributed two-thirds of the finances and the federal one-third. Currently, this trend has reversed. The issue of federal versus state responsibility is now twofold: (1) Does the federal government really have a responsibility for the financial support of higher education? and (2) How long can the states realistically carry the burden?

Some people believe that direct and substantial federal support for higher education is unconstitutional and that basic public funding for higher education is a state responsibility (Change 14, September 14, 1982). Indeed, according to the United States Constitution, it is the responsibility of the states to provide for the education of their citizens (Rosenfeld). Other people, such as Arnold, believe that the federal government does have a responsibility. Arnold proposes that the states and private sources continue to play a major role in financial support in the determination of broad policies and as a basis for deci-

sion making. The federal government, however, should play a substantial but not preponderant role. The author also maintains that this support should take the form of direct institutional support. She believes this encourages state and private support as well as aids the preservation of diversity. With respect to the federal influence on student aid, Fenske and Clark (1981) feel that the public appears to have been content with aid going directly to the student rather than to the institution.

Still other people want to know how much longer this vital responsibility of financing higher education can be entrusted to the states. The federal government is perceived as emphasizing access while the state effort is viewed as being primarily concerned with choice. There is a definite need for the two to redefine and coordinate their efforts.

The National Center on Education Statistics reports that although higher education received substantially greater amounts of revenues from governmental sources in 1980 than they did in 1970, comparisons of the distribution of revenues by sources show that federal revenues dropped as a percentage of the total for universities from 1970 to 1980 - from 24 percent down to 16 percent for publics and from 33 percent down to 27 percent for privates. Magarrel (1982) in the Chronicle of Higher Education reports that private institutions were found to have experienced more severe federal fund cuts this past year in the form of Pell Grants than did public institutions (10 percent and 3 percent respectively), but that this was reversed for the National Direct Student Loan reductions (18 percent and 26 percent respectively).

According to the National Center on Education Statistics, public institutions in 1980 received between 58 and 75 percent of all revenues from the government - 40 to 52 percent of which was state supplied. The

National Commission on Higher Education Issues states that with projected declines in federal support, institutions are increasingly looking to the states for help. The ability of the states, however, to take on more of the burden will depend upon the overall strength of the economy, which of course is difficult to project. The Commission provides information from M. M. Chambers' report in the October 21, 1981 edition of the Chronicle of Higher Education: although the states increased their support of higher education 20 percent in the two-year period ending 1981-82, this represents a 4 percent decline when inflation is taken into account. Additionally, he reports that thirty-four states fell behind in their appropriations during this period. Mortenson (1982) relates the following finding in terms of Illinois' support of higher education: from fiscal year 1971 to fiscal year 1982, Illinois dropped from 25 percent above the national average in state appropriations per capita to 14 percent below.

Institutional sources in 1980 provided more than 25 percent of the private four-year revenues and less than 4 percent for public two-year institutions (National Center on Education Statistics). Magarrel (1982) points out that while institutional aid to students in 1981-82 increased by 9 percent, tuition rose by 14 percent. In particular, institutional loans rose by 17 percent while institutional grants rose by 16 percent.

It is reported in Higher Education and National Affairs (volume 31, September 24, 1982) that the institutions and states will not be able to fully provide from their limited resources, and that the federal government is the only potential source to solve the problem. Exactly what roles these sources will play in the immediate future is unknown. Van de Water predicts, however, that the states are not likely to provide

substantially more assistance and that a greater contribution on the part of the family will be necessary. Access may increasingly be defined by a family's ability to pay. The National Commission on Higher Education Issues cites similar expectations; under current funding patterns, student fees will become the major source of institutional income. Alexander, Eckland, and Thomas claim that traditionally blacks, women, and lower-income students have been more successful in gaining access to all levels of education during periods of economic growth and prosperity and therefore that the road ahead may be harder for these groups than it was a decade ago.

Low versus High Tuition

The age-old argument in support of high tuition has been that since students personally benefit from their college education, they should be required to pay a larger percentage of the cost. It has been argued that the state tax laws were such that the public funding of higher education was, in effect, resulting in the poor subsidizing the rich (Stampen, 1980). Consequently, one could ensure both equity and accessibility by requiring students to pay all, or most, of the cost of their education. Public funded aid would be made available to those who could not afford to pay the full cost.

On the other hand, low tuition advocates maintain that it is society who is higher education's main beneficiary and it is society who should thus bear the greater financial burden. Stampen points out that the current societal-personal sharing of higher education expenses has enabled the United States to educate a much larger percentage of it's young adults than any other part of the world. He also comments that the maintenance of low tuitions through public subsidies has provided

"reasonable assurance of accessibility and equality of collegiate opportunity, institutional autonomy, and substantial support for institutional programs."

Stampen contends that higher education should support retention of low tuition, both as the foundation for public college financing and as society's primary guarantee of access to higher education opportunity. Furthermore, he points out that there appear to be few alternatives as long as mass access to higher education is to remain a high societal priority. Various studies are referred to in which student aid is reported to be not a viable substitute for low tuition, i.e., low tuition supplemented by student aid serves accessibility and maintains academic quality better than high tuition and large amounts of student aid. In brief, he believes that low tuition provides the majority of people considering postsecondary education with an acceptable level of financial risk, both low tuition and student aid are said to successfully obtain for students and institutions large amounts of capital for human resources investment, and that by financing public higher education through low tuition and facilitating access and choice through student aid, it serves to maintain and improve the development of the national economy as well as its citizens.

With the recent federal budget cuts in student aid programs as well as the threat of a continuation of the cuts, the idea of consolidating existing campus-based aid programs has been proposed. The Department of Education claims that this would "give institutions more flexibility to use fewer dollars." (National Commission on Higher Education Issues, 1981). Fenske and Clark (1981) discuss the current student aid advisory structure through the two opposing viewpoints - maintaining and expand-

ing the Coalition for the Coordination of Student Financial Aid and the need for developing a governance structure in student aid (as presented by Atwell and Fenske). The authors report that while financial aid is a critical factor in the public versus private enrollment balance, financial inducements make a difference for only a very small number of students.

In short, Fenske and Clark and the National Commission on Higher Education Issues question and point to the need for further research into the role of student aid in higher education. How can higher education withdraw from a situation which has rapidly developed such massive constituencies? Moreover, should It? How much longer can and should higher education rely on student aid, the federal and/or the state government? These are only a very few of the important issues facing higher education today.

ANNOTATED BIBLIOGRAPHY

FOR

OUTSTANDING QUESTIONS CONCERNING ACCESS AND CHOICE

Arnold, Christian K. "The Federal Role in Funding Education: A Historical Perspective." Change 14 (September 1982):39-43,54.

Arnold presents an excellent description of the historical development of the basic public funding for higher education as a state function and a discussion of the federal government's current role.

Four major factors are described as prohibiting federal involvement and as a result of the states' historical responsibility of higher education financial support. The first factor is defined as federal poverty. Following the War of Independence, the central government experienced severe tax authority limitations and simply could not afford involvement. Secondly, the separate and distinct personalities and entities of the colonies resulted in sectionalism and provincialism--restricting unity and cooperation. Third, the establishment of the colonies as church states forced the central government to assume a denominationally neutral role. Because of colonial perceptions of a national institution as "Godless", no federal intervention took place. Deep political differences constituted the fourth and final factor. Bitter political infighting and colonial resistance to give up their "local prejudices and habitual jealousies" led to distrust in and the eventual abandonment of a plan for a neutralized national university in the central part of the United States.

The deficiencies of an all-categorical project-grant approach to federal support is emphasized in the next section along with a discussion of advantages of and basic principles regarding a strong institutional-support program. The categorical aid approach is viewed as lacking recognition of federal responsibility for assisting the maintenance of a healthy higher education system because (1) it disregards the

impact of a program on other already existing programs and (2) it totally neglects support for maintaining the vitality of the institution as an institution, i.e. it provides only "conditional" money--money with strings attached and pays less than full cost for services rendered (such as research).

The institutional-support program calls for a continuing major role by state and private sources and a substantial but not preponderate supportive federal role. Two implementation methods are suggested: (1) a reduction or elimination of the interstate fiscal barriers, and (2) a program of federal grants directed to the institution based upon a percentage of non-federal institutional revenue. The advantages include encouraging state and private support, the preservation of the public and private principle, encouraging increased funding from traditional sources, and finally a tendency to stabilize, possibly even reduce, student tuition and fees.

Mention is made of the substitution of low tuition for student aid as a means of providing access.

Clark, Patricia L., and Fenske, Robert H., eds. "Renewing and Developing the Partnership: Federal/State/Campus Cooperation in Student Financial Aid." ACT Special Report No. 29. Iowa City, Iowa: American College Testing Program, 1981. ED 202 432.

Reports on the 1980 Student Financial Aid Conference and summarizes the symposium discussion following the conference. Provides a very good overview of the various issues involved in the federal, state, and institutional roles and financial aid. Also points out several questions concerning these issues with which American higher education will be forced to come to grips if it is to maintain and continue its goal of insuring access and protecting choice.

Specifically, the content of this 76 page report includes the following: two views of the present advisory structure for student aid - "Maintaining and Expanding the Coalition for the Coordination of Student Financial Aid" (by Robert H. Atwell), and "The Need for Developing a Governance Structure in Student Aid: An Alternative View" (by Robert H. Fenske) - the latter of which includes a discussion of the basic problems and societal and political issues of student aid; communication and influence in student aid; policy and governance issues; administrative problems and issues; the role of research; and a new role for the Coalition.

The following are just a few of the concerns pointed out in the article: (1) what exactly is the role of student aid in financing higher education and what should society be doing with these programs? (2) the overdue need for the clarification of roles and responsibilities of the federal and state governments and the institutions. (3) using financial aid to provide access and choice - should and can we withdraw? (4) using financial aid as an inducement to perpetuate the campus. (5) the problem of providing access to nontraditional students while utilizing traditional methods thus failing to meet their expectations and needs to succeed.

National Commission on Higher Education Issues. "Financing American Higher Education." Unpublished Background Paper No. 3. Washington, D.C., October 1981.

Prepared by the National Commission on Higher Education Issues, this report consists of a variety of tables including enrollment by level of study, sex, control of institution, educational expenditures as a percent of the Gross National Product, as well as the current fund expenditures for both public and private higher education. Also included are brief discussions of federal and state support of higher education, student fees, and the economic impact on the independent institutions. A fact sheet on student aid, prepared by the American Council on Education, Division of Governmental Relations, lists and describes the federal student aid program cuts effected by the Reagan Administration. Moreover, an estimation of the impact of the proposed federal student aid budget cuts and inflation on dependent undergraduate aid recipients at national and regional colleges and universities over a five year period is included. This paper provides excellent, up-to-date background material relating to the financing of higher education.

The National Center for Education Statistics. The Condition of Education: 1982 Edition. Edited by Nancy B. Dearman and Valena White Plisko. Washington, D.C.: National Center for Education Statistics, 1982.

This annual statistical report by the National Center for Education Statistics focuses on the impact of enrollment on changes in the various educational levels. It provides an excellent and thorough overview of the current higher education trends. A discussion of the population shifts and economic conditions affecting higher education parallels numerous charts and tables regarding enrollment, institutional finance, and student finance.

Chapter four, which contains the bulk of the information pertaining to the postsecondary level, breaks enrollment down into four catagories - age, sex, racial/ethnic group, and institutional type - and reports the following findings: (1) In terms of total higher education enrollments, the number of nontraditional students (25 years or older) has increased by ten percent, from 28 percent in 1970 to 38 percent in 1980. (2) Female first-time and total enrollments between 1970 and 1980 increased faster than those of males (50 percent and 76 percent respective increases in correspondence to 6 percent and 17 percent for males). As a result, in 1979 and 1980 females out numbered males in higher education. (3) Basing college enrollment on a percentage of eligible students (high school graduates) rather than total population, indicates a 32 percent white, 28 percent black, and 30 percent Hispanic enrollment. Between 1978 and 1980, each minority group, except blacks, had a higher percentage increase in undergraduate enrollments than whites. During the same time period, each minority group at the graduate level, except for blacks, had increased enrollment. (4) Public institutions enrolled 78 percent of the 12.2 million higher education students in 1980 -

almost evenly divided between two- and four-year institutions.

The following main points were made in regard to institutional finance: (1) Although higher education institutions received substantially greater amounts of revenues from government sources in 1980 than they did in 1970, comparisons of the distribution of revenues by sources show that federal revenues dropped as a percentage of the total for universities from 1970 to 1980, from 24 percent down to 16 percent for publics, and from 33 percent down to 27 percent for privates. (2) In 1980, public institutions received between 58 and 75 percent of all revenues from government, in particular the state which supplied between 40 and 52 percent of revenues. (3) Institutional sources in 1980 provided more than 25 percent of the private four-year revenues and less than 4 percent for public two- year institutions.

In the area of student finance, the Center reports that between 1970 and 1980, student charges doubled along with median family income. In comparison to whites, however, Hispanic families' median income was about 33 percent lower, and blacks' were 42 percent lower. Also included in this section is a report on the results of a 1980 survey of parental views on the financial responsibility for higher education. Parents were found to be more likely to feel that it was their responsibility as opposed to the students' or government's responsibility to fund students' cost of higher education. However, only 41 percent of the parents at the lowest income level believed this to be so, in comparison to 49 percent at the middle level and 58 percent at the highest level. Additionally, only 44 percent of Hispanic and black parents held this view, in comparison to 50 percent of white parents. All three income groups gave the same order of preference in allocating the main

responsibility - parents, students, federal government, and state or local government. Hispanics ranked state or local government as second while blacks gave the second ranking to the federal government.

Stampen, Jacob. The Financing of Public Higher Education: Low Tuition, Student Aid, and the Federal Government. ERIC Clearinghouse Research Report No. 9. Washington, D.C.: American Association for Higher Education, 1980. ED 202 447.

This report provides an excellent discussion of the low tuition versus high tuition/student aid debate. Two chapters cover this issue, mainly in the form of a literature review on such topics as the societal versus individual benefits of higher education, the equity and efficiency of low tuition and student aid, and the relationship between the cost of college attendance and enrollment. The latter topic includes a discussion of the effect of lowered public college attendance on private attendance on private colleges. Stampen cautions against relying soley on any one research finding because there are widespread contradictions in the conclusions of various studies and, even more importantly, because tuition is only one of several factors (indeed a relatively small factor) that influences college choice.

Little systematic research and monitoring has been applied to the issue regarding low tuition equity and efficiency (the substitution of high tuition and student aid for low tuition). Two studies, however, indirectly reflect upon this issue. The first, a set of studies by Bishop and Van Dyk (1975) and Bishop (1977), indicates the effectiveness of low tuition as a stimulant for low-income college student enrollment. In addition, student aid is suggested as most effective when used as a supplement to low tuition; a conclusion that has been long held by low tuition advocates. Stampen contends that despite the somewhat lesser significance of Bishop's data (a result of pre-federal/state student aid expansion analysis), it serves as an important explanation for improved equitable access via low tuition.

The second study by Lavin, Alba, and Silberstein (1979, 1980), con-

tains data drawn from the fairly recent experiences of the City University of New York, and concludes that although benefits indeed flow to those intended, they also encourage the unintended to take better advantage of the new opportunities.

An additional chapter reviews the 1970s federal decisions, the changes and trends resulting from these decisions, and the new issues brought to light by the trends. Included is a brief discussion of the Congressional debates concerning direct and indirect federal support of higher education, and the impact of federal student aid on states and institutions.

In the final chapter, the author assesses the debate of low tuition and/or student aid. This generally consists of his viewpoints on both the positive and negative sides of the argument and his recommendations on the financing of public higher education under recent changes. In short, he concludes that low tuition supplemented by student aid should be retained as based on his perception that there "...appears to be few alternatives as long as mass access to higher education remains a high societal priority." Additionally, he offers several important advantages of his conclusion as it applies to students, institutions, and to society at large.

The question remains, however, as to just how much longer will universal access remain a top priority?

Van de Water, Gordon B. "Emerging Issues in Postsecondary Education", 1981. Higher Education in the States 8 (1982):1-28.

Reports on an excellent survey of state policy leaders conducted by the Education Commission of the States' Finance Center in the fall of 1981. Five major issues were identified: (1) the quality of education, (2) basic skills and remedial/developmental programs, (3) physical plant update/replacement, (4) public tuition levels, and (5) the impact of federal student grant policy changes.

The concern about public tuition levels reflects the tension between the need to produce more revenue and the desire to maintain access to colleges by keeping the charges to students low. The fact that tuitions are expected to continue rising worries state policy leaders who are concerned about the impact of recent funding reductions and the liklihood of future deeper cuts. States are not believed likely to provide substantially more assistance for the financing of postsecondary education. Furthermore, they expect a greater contribution on the part of the family. The implication is that access to higher education may be increasingly defined by a family's ability to pay.

The report provides a summary of responses to sample survey questions and presents a series of charts that depict in greater detail specific responses by both region (Northeast, Midwest, South, West) and type of respondent (Governors' Offices, Legislators, and Educators).

The Center found broad concensus on the leading issues as well as on the rating of them. A few significant differences existed in the responses to specific questions. While very few policy leaders perceived current public tuition levels as being too high, Western legislators viewed them as being too low. Although the majority of the policy leaders believed that current state funding is too high, Northeasterners

in general perceived the funds as too low.

It is the author's belief that this report will be helpful in assisting state policy makers to know what others perceive the issues to be and how the issues are perceived among regions and types of respondents.

SELECTED BIBLIOGRAPHY
OF ADDITIONAL READINGS

Articles

Barks, Jeffrey A. "Parental Contributions for Higher Education: An Analysis of Expected and Reported Contributions." Journal of Education Finance 5 (Summer 1979): 87-101.

Bergen, M. B., and Zielke, D. D. "Educational Progress of BEOG Recipients Compared to Non-Recipients." Journal of Student Financial Aid 9 (February 1979): 19-22.

Byce, Charles, and St. John, Edward P. "The Changing Federal Role in Student Financial Aid." New Directions for Higher Education: Meeting Student Aid Needs in a Period of Retrenchment No. 40. Edited by Martin Kramer, San Francisco: Jossey-Bass Inc., Publishers, December 1982.

Chapman, David W. "A Model of Student College Choice." Journal of Higher Education 52 (September/October 1981): 490-503.

Chapman, Randall G. "Pricing Policy and the College Choice Process." Research in Higher Education 10 (1979): 37-57.

Churchill, William D., and Iwai, Stanley I. "College Attrition and the Financial Support Systems of Students." Research in Higher Education 17 (1982): 105-113.

Davis, Jerry J., and Kingston Johns, Jr. "Low Family Income: A Continuing Barrier to College Enrollment?" Journal of Student Financial Aid" 12 (February 1982): 5-10.

Fetters, William B., and Peng, Samuel S. "Variables Involved in Withdrawal During the First Two Years of College: Preliminary Findings from the National Longitudinal Study of the High School Class of 1972." American Educational Research Journal 15 (Summer 1978): 361-372.

Jensen, Eric L. "Financial Aid and Educational Outcomes: A Review." College and University 58 (Spring 1982): 287-302.

Karmas, Constantine; Kohen, Andrew I.; and Nestel, Gilbert. "Factors

Affecting Individual Persistence Rates in Undergraduate College Programs." American Educational Research Journal 15 (Spring 1978): 233-252.

LeMay, M., and McCreight, K. "A Longitudinal Study of the Achievement and Persistence of Students Who Received BEOGs." Journal of Student Financial Aid 12 (1982): 11-15.

Litten, Larry H. "Different Strokes in the Applicant Pool: Some Refinements in a Model of Student College Choice." Journal of Higher Education 53 (July/August 1982): 303-402.

Rizzo, Linda M., and Shaut, William E. "Impact of a Tuition Assistance Program on Students' Freedom of Choice in College Selection." Journal of Student Financial Aid 10 (1980): 34-42.

Tierney, Michael L. "The Actual "Tuition Gap": Differential Pricing by Public and Private Institutions." Journal of Education Finance 5 (Spring 1980): 375-390.

Tierney, Michael L. "Student Matriculation Decisions and Financial Aid." Review of Higher Education 3 (Winter 1980): 14-25.

Books

Astin, Alexander W. Minorities in American Higher Education: Recent Trends, Current Prospects, and Recommendations. San Francisco, California: Jossey Bass, Inc., Publishers, 1982.

Breneman, David W., and Finn, Chester E., Jr., eds. Public Policy and Private Higher Education. Washington, D.C.: The Brookings Institution, 1978.

The Carnegie Council on Policy Studies. Next Steps for the 1980's in Student Financial Aid. San Francisco, California: Jossey Bass, Inc., Publishers, 1979.

The Carnegie Council on Policy Studies. The Carnegie Council on Policy Studies in Higher Education: A Summary of Reports and Recommendations. Foreward by Clark Kerr. San Francisco, California: Jossey Bass, Inc., Publishers, 1980.

Dickmeyer, Nathan; Wessels, John; and Coldren, Sharon L. Institutionally Funded Student Aid. Washington, D.C.: American Council on Education, 1981.

Ihlanfeldt, William. Achieving Optimal Enrollments and Tuition Revenues. San Francisco, California: Jossey Bass, Inc., Publishers, 1980.

Morris, Lorenzo. Elusive Equality: The Status of Black Americans in Higher Education. Washington, D.C.: Howard University Press, 1979.

National Advisory Committee on Black Higher Education and Black Colleges and Universities. Access of Black Americans to Higher Education: How Open is the Door? Washington, D.C.: Government Printing Office, 1979.

Olivas, Michael A. The Dilemma of Access: Minorities in Two-Year Colleges. Washington, D.C.: Howard University Press, 1979.

Reports

Balridge, J. Victor; Green, Kenneth C.; and Kemerer, Frank R. Enrollment Crisis: Factors, Actors, and Impacts. AAHE-ERIC/Higher Education Research Report Number 3, Washington, D.C.: American Association for Higher Education, 1982.

Bane, Mary Jo, and Winston, Kenneth I. Equity in Higher Education. Cambridge, Massachusetts: Graduate School of Education, Harvard University, 1980.

Corwin, Thomas M. Recent Trends in Federal Student Aid: The Rise of the "Nonreturnable" Loan. Washington, D.C.: U.S. Department of Education, Office of Planning and Budget, 1981.

Green, Kenneth C. Access and Opportunity: Government Support for Minority Participation in Higher Education. AAHE-ERIC/Higher Education Research Report Number 10, Washington, D.C.: American Association for Higher Education, 1981.

Illinois Community College Board. "First Year Persistence and Achievement." A Follow-Up Study of Students Transferring from Illinois Two-Year Colleges to Illinois Senior Institutions in Fall 1979. Springfield, Illinois: Illinois Community College Board, 1982.

Illinois Community College Board. "Mobility Patterns and Pre-Transfer Characteristics." A Follow-Up Study of Students Transferring from Illinois Two-Year Colleges to Illinois Senior Institutions in Fall 1979. Springfield, Illinois: Illinois Community College Board, 1982.

Leslie, Larry L. Higher Education Opportunity: A Decade of Progress. ERIC/Higher Education Research Report Number 3, Washington, D.C.: American Association for Higher Education, 1977.